

**Commonwealth of Kentucky  
Division for Air Quality**

REVISED

**PERMIT APPLICATION SUMMARY FORM**

Completed by: Ben Markin

GENERAL INFORMATION:

Name:	TVA Paradise Fossil Plant
Address:	13246 State Route 176, Drakesboro, KY 42337
Date application received:	December 11, 1996
SIC/Source description:	4911 Electric Services
Source I.D. #:	21-177-00006
Source A.I. #:	3239
Activity #:	APE20040002
Permit number:	V-04-024

APPLICATION TYPE/PERMIT ACTIVITY:

<input checked="" type="checkbox"/> Initial issuance	<input type="checkbox"/> General permit
<input type="checkbox"/> Permit modification	<input type="checkbox"/> Conditional major
__Administrative	<input checked="" type="checkbox"/> Title V
__Minor	<input type="checkbox"/> Synthetic minor
__Significant	<input checked="" type="checkbox"/> Operating
<input type="checkbox"/> Permit renewal	<input type="checkbox"/> Construction/operating

COMPLIANCE SUMMARY:

<input type="checkbox"/> Source is out of compliance	<input type="checkbox"/> Compliance schedule included
<input checked="" type="checkbox"/> Compliance certification signed	

APPLICABLE REQUIREMENTS LIST:

<input type="checkbox"/> NSR	<input checked="" type="checkbox"/> NSPS	<input checked="" type="checkbox"/> SIP
<input type="checkbox"/> PSD	<input type="checkbox"/> NESHAPS	<input type="checkbox"/> Other
<input type="checkbox"/> Netted out of PSD/NSR	<input type="checkbox"/> Not major modification per 401 KAR 51:017, 1(23)(b) or 51:052,1(14)(b)	

MISCELLANEOUS:

- ☒ Acid rain source
- ☐ Source subject to 112(r)
- ☐ Source applied for federally enforceable emissions cap
- ☐ Source provided terms for alternative operating scenarios
- ☐ Source subject to a MACT standard
- ☐ Source requested case-by-case 112(g) or (j) determination
- ☐ Application proposes new control technology
- ☒ Certified by responsible official
- ☒ Diagrams or drawings included
- ☐ Confidential business information (CBI) submitted in application
- ☐ Pollution Prevention Measures
- ☐ Area is non-attainment (list pollutants):

EMISSIONS SUMMARY:

Pollutant	Actual (tpy)*	Potential (tpy)
PM/PM <sub>10</sub>	3242/578	5267/1163
SO <sub>2</sub>	108,467	119,523
NO <sub>x</sub>	39,800	61,925
CO	1777	2756
VOC	207	320
LEAD	0.6	0.9

\*Actual emissions based on 2003 survey data

SOURCE PROCESS DESCRIPTION:

Tennessee Valley Authority operates three coal-fired electric steam generating boilers. All three are equipped with selective catalytic reduction for NO<sub>x</sub> control. To control particulate matter and SO<sub>2</sub> emissions, Units 1 and 2 are equipped with venturi type flue gas desulfurization scrubbers. Electrostatic precipitators control particulate matter emissions from Unit 3 with flue gas conditioning when deemed necessary. A flue gas desulfurization scrubber is under construction on Unit 3 with projected start-up in late 2006. The facility also includes coal handling equipment, limestone handling equipment, building heat boilers and heaters, and ash, gypsum, and coal wash plant disposal processes.